Presentation to the Massachusetts Dairy Task Force

September 7, 2007
Ed Maltby, Executive Director, Northeast Organic Dairy Producers Alliance.

In looking at what the task force was asked to do and my own experience milking cows and supporting my family from the profits of a farm business I wanted to initially frame my presentation on what are the ingredients for a sustainable future for dairying in Massachusetts:

1. A predictable price for milk at the farm which will:
    a. Covers ALL the cost of production;
    b. Give an adequate cash return to owners labor that can provide good health insurance, a college fund for our children;
    c. Provide a return on investment that can maintain and improve the property for the next generation and increase the net worth of the main capital asset, the land and the cows.
2. Provides a lifestyle for the farm family that, when I ask my son what he wants to do, his first reply is to farm. We have to attract the next generation of farmers as the average age of dairy farmers heads into the low 60's.
3. Not bury the farm in debt that threatens its net worth - Fully utilize the existing assets that dairy farmers have available rather than incurring new debts for businesses that are already fully leveraged.
4. Have more control over my costs and returns -be a price taker - Develop production and business practices that give more control to me as a Massachusetts dairy farmer, both from the point of view of production costs and farmgate price.
5. Looking to the bigger picture, I would move toward production systems that save energy, enhance the environment and are a benefit to all of the Commonwealth and the many conservation programs supported by the tax payers of the state.

An Overview of Organic Dairy

Organic dairy is not for everyone but it has been recognized by all the New England states as a useful part of the toolbox of alternatives that needs to be considered as a way to provide a sustainable future for dairies that sell into the wholesale market.

The future of organic dairy is strong and industry predictions suggest that organic dairy at maturity will reach 15% of the total milk supply. With over 200,000 certified organic cows producing 3% of the total fluid milk nationally, organic dairy in 2007 is no longer a niche market but part of a rapidly expanding $17 billion dollar industry.

With over 500 organic dairy farms in New England and New York, and dedicated processing plants in CT, NY and NJ, organic dairy is becoming a significant part of dairy landscape of New England. We have only seen the beginning of the expansion of new organic product lines with the increased supply of raw organic milk, especially with Stonyfield Farms projecting a goal of 100% organic in all their production lines, such as yogurts, smoothies etc.

Organic production use15% less energy than conventional agriculture and can address the increasing concern over energy use and pollution from agriculture production. The more efficient use of energy cuts the costs of production at a time when that is the most rapidly rising production expense.
Another concern, especially for a small urban state like Massachusetts, is the pollution caused by the use of pesticides and herbicides whose residues often end up in our waterways. Organic uses no herbicides and pesticides.

Most importantly, farmers who have transitioned to organic dairy say they have no regrets, when asked "What do the farmers think about organic? Not surprisingly, 85% of the farmers were very satisfied with their decision to go organic and another 15% satisfied. None of the participants in the study were unhappy with their decision to go organic."[1]

Organic myths:

There are many myths and questions around organic production and I would like to go thro some of them

1. **Organic farmers let their cows suffer rather than use antibiotics –**
    - **a.** Organic farmers are mandated to use antibiotics when necessary to prevent suffering but then have to stop selling the milk or beef as organic.
    - **b.** Like all dairy farmers, organic farmers are committed to maintaining the health and welfare of their cows.
    - **c.** Organic dairy farmers practice preventive health care that severely reduces the incidence of sickness and there is an increasing availability of "ready to use" homeopathic, herbal and approved treatments for dairy cows.
2. **The differentiated price will drop with the introduction of corporate feed lot farms** –
    a. The most recent USDA prosecution of the Aurora dairy (a 5,000 cow feed lot organic dairy) has shown the strength of the regulation in protecting the essence of organic dairy – that milking herd should be pasture based which will always give the Northeast an advantage because of their climate and soils.
    b. The most recent surplus of organic milk hasn't seen a drop in pay price to Northeast dairy farmers, as processors and farmers recognize the need to protect their long term supply
    c. The processing companies have invested in infrastructure in the knowledge that the market will continue to grow.

3. **Difficulty in building loads for picking up milk**
    a. This problem was very common a few years ago but that has been overcome in other states by working with processors to group farmers within reasonable trucking routes.
    b. With the increasing costs of energy there will always be a need for raw product near to one of the largest consumer markets for organic products.

4. **Lack of data to make informed decisions** –
    a. This is true because of the low level of funding for research into organic production. With the increasing interest on the Federal level, highlighted by a committee dedicated to organic interest within the House Agricultural Committee, it is proposed that the research budget for organics will increase by over 300% within the five year term of the new Farm Bill.
    b. The most recent surveys from the Universities of Maine and Vermont conducted by Rick Kersbergen, Bob Parsons and Lisa McCrory show that in order to have a 5% ROI (return on investment) with a 10% increase in fuel costs and a 7.5% increase in feed costs, there needs to be an average farmgate price of $29.02 per hundredweight. The average base pay price for the NE is $26.50 and with payments for components many farms are receiving over $30 per cwt with no deductions for trucking the milk from the farm.

5. **There is a lack of organic feed and supplies -**
    a. That again can be a problem but in the last year there has been a rapid increase in companies providing quality organic feed on a regular basis.

[1] **Economics of Organic Dairy Production in the Northeast,** Lisa McCrory and Bob Parsons, May 2007

b. Conventional dairies also have that problem with the need to import grain from New York and the Midwest.
c. Organic Dairies can make better use of existing pasture and lower the costs of inputs
d. With the whole farm under organic certification there is an added opportunity to sell more hay and value-added products as organically certified to satisfy the increasing demand from the many farm and non-farm businesses that are marketing their finished products under the USDA Organic Seal.

6. **Lack or resources to assist farmers who wish to transition to organic -**
    a. This is true but also covers the conventional dairy as well. Vermont and New York have highly developed advice and resources for transitioning dairy farms, partly funded by cooperative agreements with the state.
    b. NOFA Mass has provided a list of professional consultants who are ready and willing to help.[2]
    c. The new Federal Farm Bill has also seen a proposed mandatory increase in grant funding to assist with the expense of transitioning to organic production.

7. **Lack of farmers willing to make the change**
    a. Research in other states has shown that with an increase in supply of information and a de-mystification of the organic certification process, more farmers have looked to grass based and organic farming as a production method to sustain their operations.
    b. This is underlined in Massachusetts by the recently formed Massachusetts Grazing Lands Conservation Initiative Steering Committee.[3]

Pasture Based Production Systems

Organic and pasture based dairying are inextricably linked, although not all pasture based dairies or dairy farms that use pasture intensively are necessarily organically certified. Increased use of pasture and intensive grassland production methods can be incorporated into Massachusetts dairies with no capital expense and can provide a risk free transition to organic. At the same time, the increased use of pasture can give dairy farmers more control over their farm's cost of production. With a high conventional price, now is the time to change production systems that require learning new production practices.

One of the must under used assets that dairy farms have is the use of pasture. A grazing-based dairy has been defined as a unit of fenced land with productive soil that is managed to provide high quality forage for lactating dairy cows, replacement heifers, or dry cows as a significant portion of their diet throughout the pasture growing season.[4] Grazing-based systems are alternatives to highly capitalized systems of equipment, storage, and housing infrastructure. Grazing systems rely on two primary resources: pasture, the lowest cost source of feed available (Soder and Rotz 2001), and the dairy farmer's management skills. Because the cow ingests the standing crop, all intermediate steps required to feed the cow are eliminated during the pasture season. Forage reaches the rumen in high quality condition. Less purchased feed and manure handling are required lowering costs dramatically

Grazing-based systems can help young people become interested in and stay content with the lifestyle of dairy farming by reducing the long hours of hard work common to confinement systems. Start-up costs are also lower for grazing-based systems with lower capital investment compared to conventional dairies,

[2] Attachment A: List of organic and grass based consultants
[3] Attachment B: Massachusetts Grazing Lands Conservation Initiative Steering Committee
[4] USDA NRCS Tech note 2007 – profitable grass based dairy systems

a difference of $2,000 per cow or $200,000 for a 100 cow herd.[5] This can eliminate a significant problem for young people with little equity to purchase a herd, acquire basic equipment, and rent or buy a farm.

What is unique about the northeast region is its ability to produce cool-season grasses and legumes. These forages, in particular when used as pasture, have a demonstrated potential to significantly reduce the production costs for most dairy producers leading to a higher net farm income. Economic studies have demonstrated that well-managed grazing-based dairy systems tend to have higher net incomes per cow than similar sized confinement-based farms.[6]

These increased economic benefits are primarily related to lower overall production costs, including crop production costs such as the following:

- Labor, machinery and fuel to plow, plant, and harvest
- Fertilizers, soil amendments, pesticides, and herbicides
- Transport and storage costs

Any significant reduction in input costs will most likely improve net farm income. The amount of forage that has to be mechanically harvested, placed into storage, and then fed back out of storage is reduced by one day for every day that the cows harvest their own feed through grazing. This generally amounts to at least 5 months in New England, depending on growing season length. It can be profitable to extend the grazing season by widening the mix of forage crops by planting cool- and warm-season grasses and annual crops that grow or maintain their quality when other forage crops are dormant or low quality.

Grazing-based systems have also been found to lower the costs for animal care and replacement by prolonging the working life of the cow, significantly reducing the annual cull rate.

As an example, data from the 2005-2006 Cornell University, Dairy Farm Business Summaries indicates that on New York State dairy farms where technically sound systems of grazing management were implemented in conjunction with the recommended guidelines for supplemental feeding and livestock management, the net income per cow without appreciation averaged $386 per cow/yr higher than on farms where grazing was not utilized or utilized but not well-managed, that is $957 net income compared with $571 per cow.[7]

There is a longer history comparing pasture based systems than with organic and there has been extensive studies with over 100 dairy farms of varying sizes in Wisconsin and New York that show consistently high net income from grass based dairies. A three-year study conducted in Wisconsin from 2000 to 2002 consistently showed that grass-based dairies, despite lower milk production per cow, had a higher net farm income from operations compared to confinement dairy operations.[8] Other key findings from the study include:

- In Wisconsin and New York, graziers were more profitable per cow and per hundredweight equivalent (cwt) than their confinement counterparts in these states.
- Farms using managed grazing consistently showed higher net farm incomes from operations per cwt and lower costs per cwt than traditional and large modern confinement farms in Wisconsin.
- Farmers who switch from confinement dairy farming to managed grazing need not suffer financial hardship during the transition.

[5] Iowa State 2007 production costs
[6] Winsten et al. 1996; Cornell Dairy Farm Business Summary 1996–2000; Kriegel 2000, 2003
[7] Intensive Grazing Farms 2004 Cornell University – September 2005
[8] *Pastures of Plenty: Financial Performance of Wisconsin Dairy Farms,* Tom Kriegl and Ruth McNair, UW-Madison, 2005.

- The average grazing dairy farm with less than 100 cows was more profitable per cow and per cwt than those with over 100 cows. Lower labor costs account for much of this advantage.
- Graziers are making a variety of strategies work for them. Some graziers use a seasonal calving strategy, some are certified organic, and some use milking parlors. No single approach seems to be the right or only way to manage a grazing dairy farm.

Increased net income and improved lifestyle are what will keep dairy farms in business.

Kathie Arnold, an organic dairy farmer from Truxton New York has sent a testimonial [9]which I'd like to quote from:
My husband, his brother, and I have been in partnership for over 27 years in Central New York. We did our first Cornell Dairy Farm Business Summary (DFBS) in 1988 at which time we were doing okay financially, but certainly much was left to be desired. After a few years of the DFBS, we thought we could do better if we took our fresh cows and high yielding cows off pasture and just fed them in the barn. Our herd average was already around 23,000 pounds per year at that time. We did see a little increase in milk production with this change but it was also accompanied by greatly increased purchased feed costs and more herd health issues……..

In 1998, we transitioned our herd to organic production and that led to another bump-up in profitability. I have not done the DFBS every year since we have been organic but have done it 3 out of our 8 finished years of organic production. Looking at our rate of return for all capital (without appreciation) does show a difference in profitability for the 4 management regimes we have had since 1988:

1988-1990—low intensity grazing: 4.2% return on all capital
1991 & 92—mostly confinement: -.35%
1993 (a transition year to intensive grazing): 1.4%
1994-1997—intensive grazing management: 7.2%
1998, 99, & 2006—organic: 12.4%

Finally to quote from the newly elected senator from Montana, John Tester:
"Organic farming is a good deal for Montana's farmers and ranchers," Tester said. "It's a win-win for agriculture in our state. It's good for the land and it's good for folks who want to sell their crops for higher premiums."

Recommendations to the Task Force

The Northeast Organic Dairy Producers Alliance and the Northeast Organic Farming Association, Massachusetts Chapter (NOFA/Mass) have the following **PROPOSAL FOR THE REVITALIZATION OF THE MASSACHUSETTS DAIRY INDUSTRY**

1. *Provide educational models that allow dairy farmers to assess the viability of changing their production methods to lower their cost of production or increase their return. Build the infrastructure necessary to provide technical assistance in their decision-making.*

In the past, dairy farmers have been taught that financial sustainability depends on high yields with high inputs and many have geared their facilities, herd genetics and production methods to maximize their

[9] Attachment C: testimonial from Kathie Arnold

income from intensive confinement operations. However, due to a rapidly diminishing farm infrastructure and the increasing costs of feed, energy, fuel, labor and land, Massachusetts farmers are looking at alternative production methods that reduce inputs and lower the need for high cost and increasingly unavailable labor. Financial assistance that the state provides should encourage farmers to make changes in their operations that allow them to maximize their available assets to the fullest, while minimizing their reliance on high-cost imported inputs. We propose that the Massachusetts Department of Agricultural Resources (MDAR):

a. Work in partnership with other New England states and New York to develop three models that show the five-year profitability of three systems of production: confinement, intensive pasturing and organic.
b. Work with the models developed in other New England states and New York to develop a regional system of technical assistance and mentoring that provides support to dairy farmers as they work to apply the different models to their own farms.

2. *Increase Financial Support to Dairy Farms For Adopting New Production Methods and Preserving Agriculturally Productive Open Space.*

Dairy farms are the Commonwealth's largest farms; each dairy farm averages 330 acres in size.[10] 625 dairy farms have gone out of business in Massachusetts in the past 25 years. Less than 180 remain today, but they maintain most of the farmland and open space in the state. These farms contribute $500 million to the state's economy.[11] Cost of Community Services studies completed by American Farmland Trust indicate that farms pay more for municipal services than they require, while taxes on residential uses of land consistently fail to cover costs.[12] Organic dairy management practices help improve the quality of soil, water and air, which has the potential to enhance the natural resources on more than 92,000 acres of Massachusetts' farmland, nearly 18 percent of the Commonwealth's total. Organic production will also reduce energy use by over 15%. The cost of adopting new practices is often cited as a reason for dairy farmers to not change to organic or pasture based systems. Massachusetts has a highly developed and widely acclaimed Agricultural Preservation Restriction (APR) program and Farm Viability Enhancement Program (FVEP) which address both the need for preserving open space and ensuring the long-term profitability of farm families. We propose that:

a. The FVEP program give preference to dairy farmers who wish to transition to different production practices:
    i. Waive the renewal time period for those that have already received FVEP funds;
    ii. Shorten the covenant time period to five years;
    iii. Base the capital grant award on the actual cost of transitioning rather than on the number of acres put under covenant;
    iv. Increase the number of technical assistance consultants that can advise on organic and pasture-based production.
b. MDAR use the database that they have accumulated through the FVEP program to initiate a mentoring program that will involve twilight meetings, pasture walks and other farmer friendly convenings to encourage and facilitate networking and exchange of idea and challenges.
c. MDAR work with MassDevelopment, MOBD and banks to educate the state's financial institutions that despite initial cash flow difficulties, organic and pasture based systems have long-term profitability and benefit the Commonwealth.

[10] University of Massachusetts, Amherst, Center for Agriculture Web site
[11] Massachusetts Association of Dairy Farmers Web site
[12] Julia Freedgood, *Cost of Community Services Studies: Making the Case for Conservation*, American Farmland Trust, 2005

3. *Long term support for environmentally sound farming practices.*

The changing face of farming in Massachusetts will require ongoing technical assistance and support to sustain the markets for commodity products produced using organically certified or environmentally progressive production systems. With an ever expanding consumer demand for increasingly narrowly defined production practices (Whole Foods animal compassion standards, Humane Society standards), the continued profitability of the Massachusetts dairy industry will need pro-active representation of the operational realities of farming in New England. We propose that:

a. MDAR actively support and monitor Federal legislation to increase organic transition payments and "green payments" that will allow farmers to have assistance with changing their production practices and facilities;
b. MDAR actively support the introduction and expansion of sustainable and organic practices within their grant programs;
c. MDAR pro-actively work to ensure the integrity and sustainability of the market for organic and sustainable commodity products by anticipating the threats to the market (GMO's etc.) and work with the legislature and citizen groups to provide solutions to these challenges;
d. MDAR establish a division within their Marketing Bureau to support organic and sustainable production.

Attachment A: Dairy Consultants

Massachusetts Farm Viability Program Consultants
for Organic and Grass-based Dairy Production

Tom Akin, USDA NRCS Agronomist (has offered to volunteer as a consultant)
Amherst, MA
(413) 253-4365
thomas.akin@ma.usda.gov

Fay Benson, Grazing Educator, Cornell Cooperative Extension
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Rob DeClue, NY specializing in pasture infrastructure
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Mark Fellows, Organic Dairy Farmer
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Sarah Flack, NOFA VT, Organic Dairy and Livestock Technical Assistant
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sarahf@globalnetisp.net

Sonny Golden, Grazing and nutrition specialist
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Ed Maltby, Executive Director, Northeast Organic Dairy Producers Alliance
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Lisa McCrory, NOFA VT, Organic Dairy and Livestock Technical Assistant
(802) 434-4122
lmccrory@together.net

Larry Shearer, Grazing Advisor and Organic Dairy Farmer
Colrain, MA
(413) 624-3978
ll-shear@mtdata.com

Kathy Soder, Pasture Researcher and Animal Scientist
USDA-ARS-Pasture Systems and Watershed Management Research Unit
Building 3702, Curtin Road
University Park, PA 16802
kathy.soder@ars.usda.gov
(814) 865-3158

Karen Sullivan, USDA NRCS NY specializing in grazing nutrition.
Resource Conservationist/Animal Nutritionist
99 No. Broad Street
Norwich, NY
13815-1387
karen.sullivan@ny.usda.gov
607-334-3231

Attachment B: Massachusetts Grazing Lands Conservation Initiative Steering Committee

Christine S. Clarke
State Conservationist
USDA NRCS
451 West Street
Amherst, MA 01002

August 29, 2007
Dear Ms. Clarke,
Over the past few years, a large group of pasture-based farmers and agency (both governmental and non-governmental) personnel have gathered for pasture walks hosted by volunteer farmers. The pasture walks were useful for the "Show and Tell" benefits; however, they have uncovered the need for a more focused, farmer-led organization that can advocate for grass-based agriculture and promote the grass-based products of Massachusetts farmers.

A Massachusetts Grazing Lands Conservation Initiative Steering Committee (GLCI) was formed on August 22, 2007. We are asking you with this letter if the volunteer officers of the new Steering Committee could meet with you at your earliest convenience to discuss a future partnership to promote more grass-based agriculture in Massachusetts.

The group will design projects for several audiences: both farmers entering livestock production and those who already are pasture-based but are looking for ways to improve their management, in addition to those who have been farming conventionally and would like information and assistance transitioning to pasture. We also plan to educate Massachusetts consumers of the importance of buying local, pasture raised products.

During our first meeting, the group discussed many ideas. Some of the initial projects the group decided to focus on were:

1. Creating a directory of grass-fed products similar to one designed by the Vermont Pasture Network (http://www.uvm.edu/~pasture/Documents/2007Directory.pdf_.
2. Partnering with UMass Extension to incorporate a pasture and grazing focus for their Mass Aggie event in February or March 2008.
3. Develop a website to include resources and technical services in the Northeast available to farmers in Massachusetts.

We look forward to meeting with you and discussing our goals for the group and these initial plans. I will be in touch soon, or you can contact me at (413) 498-2721 or krossiter@nofamass.org.

Sincerely,

Kate Rossiter

Kate Rossiter, NOFA/Mass
Chair, Massachusetts GLCI Steering Committee

Kyle Bostrom, UMass Farm Manager

Leslie Cox, Hampshire College

Jennifer Hashley, Organic Farmer (Poultry, Pigs, Rabbits, veggies) and New Entry Sustainable Farming Project

Ed Maltby, NODPA

Bob Richardson –Dairy Farmer

Attachment C: **Letter from Kathie Arnold**

Twin Oaks Dairy LLC
3175 State Route 13
Truxton, NY 13158-3107
September 6, 2007

Common Wealth of Massachusetts
Department of Agricultural Resources
Dairy Farm Revitalization Task Force

Dear Massachusetts Task Force Members,

As a member of the New York State Dairy Task Force, I commend you for working to revitalize dairy farming in Massachusetts. It is a common theme here in the Northeast states and a task that needs to be done and it should be done to best utilize the natural agricultural resources and climate advantages that we have in this part of the country. The fundamental advantage we do have, in addition to being close to the greatest population centers in the country, is that we are natural grass country. The best way to employ that advantage to the benefit of MA and it farmers and citizens, is to promote pasture based dairy farms, and secondly, to promote organic dairy farms which can receive a premium price for their pasture based production and provide further environmental benefits to the state.

My husband, his brother, and I have been in partnership for over 27 years in Central New York. We did our first Cornell Dairy Farm Business Summary (DFBS) in 1988 at which time we were doing okay financially, but certainly much was left to be desired. After a few years of the DFBS, we thought we could do better if we took our fresh cows and high cows off pasture and just fed them in the barn. Our herd average was already around 23,000 pounds per year at that time. We did see a little increase in milk production with this change but it was also accompanied by greatly increased purchased feed costs and more herd health issues. By 1993, we had enough of the mostly confinement dairying and the very high feed bills that went along with it and decided to move to intensive grazing management, giving the cows a new piece of grass after every milking. We converted our best ground, which happens to be near the barn, to pasture. While that first year of intensive grazing was a learning year for both the cows and for us, our herd health had improved, the bottom line was looking better over the course of the year, and our milk production had dropped only about 500 lbs per cow. By the end of the second year of intensive grazing, we were seeing significantly increased profitability, which has carried on since. It gave us the cash flow to buy more nearby land as it became available (perhaps at a much cheaper rate than MA land) and from 1995 to now, we doubled our herd size from the original 70 cows to 140 cows.

In 1998, we transitioned our herd to organic production and that led to another bump-up in profitability. I have not done the DFBS every year since we have been organic but have done it 3 out of our 8 finished years of organic production. Looking at our rate of return for all capital (without appreciation) does show a difference in profitability for the 4 management regimes we have had since 1988:

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1998, 99, & 2006—organic: 12.4%

I would urge you to look to intensive grazing management and organic dairy production as preferred modes of production for the dairy farms in the state of Massachusetts. Not only can those production methods help farms to be profitable, but grazing and organic production will also confer many environmental benefits and much tourist / landscape appeal to your state as well.

Best wishes as you move forth on your initiatives.

Sincerely,

Kathie Arnold

Kathie Arnold